



UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE  
United States Patent and Trademark Office  
Address: COMMISSIONER OF PATENTS AND TRADEMARKS  
Washington, D.C. 20231  
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/092,773	03/07/2002	Martin L. Tanaka	E20020020	8731

7590

09/27/2002

Michael M. Rickin, Esq.  
ABB Inc.  
Legal Department - 4U6  
29801 Euclid Avenue  
Wickliffe, OH 44092-1898

EXAMINER

DICKENS, CHARLENE

ART UNIT

PAPER NUMBER

2855

DATE MAILED: 09/27/2002

Please find below and/or attached an Office communication concerning this application or proceeding.

**Office Action Summary**

Application No.

10/092,773

Applicant(s)

TANAKA, MARTIN L.

Examiner

Ex. Dickens

Art Unit

2855

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☐ Responsive to communication(s) filed on \_\_\_\_.
- 2a) ☐ This action is **FINAL**.                      2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 1-27 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-27 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☒ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☐ The proposed drawing correction filed on \_\_\_\_ is: a) ☐ approved b) ☐ disapproved by the Examiner.  
If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

**Priority under 35 U.S.C. §§ 119 and 120**

- 13) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).  
a) ☐ All b) ☐ Some \* c) ☐ None of:  
1. ☐ Certified copies of the priority documents have been received.  
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_.  
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).  
\* See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).  
a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

**Attachment(s)**

- 1) ☒ Notice of References Cited (PTO-892)                      4) ☐ Interview Summary (PTO-413) Paper No(s). \_\_\_\_.
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)                      5) ☐ Notice of Informal Patent Application (PTO-152)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449) Paper No(s) \_\_\_\_.
- 6) ☐ Other: \_\_\_\_\_.

a. The incorporation of essential material in the specification by reference to a foreign application or patent, or to **a publication** is improper. Applicant is required to amend the disclosure to include the material incorporated by reference. The amendment must be accompanied by an affidavit or declaration executed by the applicant, or a practitioner representing the applicant, stating that the amendatory material consists of the same material incorporated by reference in the referencing application. See *In re Hawkins*, 486 F.2d 569, 179 USPQ 157 (CCPA 1973); *In re Hawkins*, 486 F.2d 579, 179 USPQ 163 (CCPA 1973); and *In re Hawkins*, 486 F.2d 577, 179 USPQ 167 (CCPA 1973).

The title of the invention is not descriptive. A new title is required that is clearly indicative of the invention to which the claims are directed.

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

Claims 1-5, 8-13, 16, 18-20, 23, 26 and 27 are rejected under 35 U.S.C. 102(b) as being anticipated by Fassbinder. Fassbinder discloses in combination: an analytical instrument (Figs. 1, 2) comprising an enclosure having an opening through which a fluid can flow; a flow sensor comprising: first and second differential pressure switches (31, 33); and a sealed chamber 24 in said opening, said chamber having an outlet and comprising: first and second restrictors (21, 22) through which said fluid can flow; and means for transferring the pressure in said sealed chamber to said first and second

Art Unit: 2855

differential pressure switches, the pressure in said enclosure to said first switch and the pressure at said sealed chamber outlet to said second switch; wherein said sealed chamber outlet vents to atmosphere and said sealed chamber outlet pressure is the pressure of said atmosphere; wherein each of said first and second differential pressure switches have a predetermined actuation pressure and each of said first and second restrictors have a resistance to flow (col. 2, lines 48-68 through col. 3, lines 1-24); and wherein said means for transferring are tubes (20, 23, 25, 38).

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 6, 14, 21, 24, and 25 are rejected under 35 U.S.C. 103(a) as being unpatentable over Fassbinder in view of Allan. Claims differ from Fassbinder above with the recitations of: first and second differential pressure switches are connected in series and specifically each of the first and second differential pressure switches have a predetermined actuation pressure and each of the first and second restrictors have a resistance to flow selected so that the pressure drop across said first restrictor for a given rate of fluid flow through the first restrictor matches the predetermined actuation pressure of the first switch and the pressure drop across the second restrictor for a given rate of fluid flow through the second restrictor matches the predetermined actuation pressure of the second switch. Allan discloses, in Figs. 3 and 6, a connection circuitry, i.e., serial, of first and second differential pressure switches (P1-P3) and

Art Unit: 2855

specifically each of the first and second differential pressure switches have a predetermined actuation pressure and each of the first and second restrictors have a resistance to flow selected so that the pressure drop across said first restrictor for a given rate of fluid flow through the first restrictor matches the predetermined actuation pressure of the first switch and the pressure drop across the second restrictor for a given rate of fluid flow through the second restrictor matches the predetermined actuation pressure of the second switch (col. 6, lines 11-66 through col. 8, lines 1-49) for the purpose of providing a flow monitoring apparatus in which there are no moving parts and which is based on the venturi principle. It would have been obvious to one of ordinary skill in the art to have a connection circuitry, i.e., serial, of first and second differential pressure switches and specifically each of the first and second differential pressure switches have a predetermined actuation pressure and each of the first and second restrictors have a resistance to flow selected so that the pressure drop across said first restrictor for a given rate of fluid flow through the first restrictor matches the predetermined actuation pressure of the first switch and the pressure drop across the second restrictor for a given rate of fluid flow through the second restrictor matches the predetermined actuation pressure of the second switch in Fassbinder as suggested by Allan for the purpose of providing a flow monitoring apparatus in which there are no moving parts and which is based on the venturi principle.

Claims 6, 14, 21, 24, and 25 are rejected under 35 U.S.C. 103(a) as being unpatentable over Fassbinder in view of Dimeff. Claims differ from Fassbinder above with the recitation of a sealed chamber outlet is threaded for attachment to an outlet

pipe. Dimeff discloses a sealed chamber outlet 24 is threaded 28 for attachment to an outlet pipe for the purpose of providing appropriate upstream and downstream points for sampling the air flow pressure in a measuring device. It would have been obvious to one of ordinary skill in the art to have a sealed chamber outlet is threaded for attachment to an outlet pipe in Fassbinder as suggested by Dimeff for the purpose of providing appropriate upstream and downstream points for sampling the air flow pressure in a measuring device.

The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. Both Henderson and Owen disclose flow meters using restrictors.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Ex. Dickens whose telephone number is 703-305-7047. The fax phone numbers for the organization where this application or proceeding is assigned are 703-305-3432 for regular communications and 703-305-3431 for After Final communications. Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is 703-308-1782.



William Oen  
Primary Examiner

Cd/dickens  
September 15, 2002